Problems Associated with Voice Recordings

Several offices have reported problems during the creation of voice recorded products on CRS. We have identified several areas where problems may occur during the recording process.

1. If a product comes from AWIPS at exactly the right time during a voice recording, the software can actually start processing the product from AWIPS - switch to manage the voice recording - then receive a 3rd product and lose track of the first product. When this happens, you are likely to see an alert monitor message about a child death of cp_di. CRS will go down, then come back up (if there are no uncorrectable database errors) really quickly. If multiple products come from AWIPS in quick succession during the voice recording, CRS can lose track of the first one to collide, then send the next several out via DECtalk (creating text components - .Pt). After this occurs, sometimes it continues to process everything via DECtalk, and VIP appears to hang ... and sometimes CRS goes down, comes back up and starts to process normally.

The symptoms vary depending on exactly where in the voice recording process the AWIPS products come in and how many arrive during the recording. Some of the symptoms we've seen are: stream copy errors, database errors which it can automatically correct, database errors which it is unable to correct, and database records with no active/inactive flag.

We occasionally end up with seemingly healthy products in /crs/data/CP/sso directory as part of this problem. I believe that this happens when the error noted above causes CRS to go down. If a product arrives from AWIPS while CRS is temporarily down, they are sent to sso.

2. If a product from AWIPSs is being processed when a voice recording is attempted, depending on where the collision occurs, it can cause a failure at the beginning of the voice recording (it does its setup for the voice recording but never lets you actually record) or a failure to properly end recording (may appear to hang when a recorded message is saved). In either instance, depending on exactly where the collision occurs, it may cause a perpetual “wait” state where one process is waiting for a confirmation from another process which has timed out and died. Since it is impossible for the second process to send its confirmation, the first process will continue to wait.

The worst symptom of this is that since the product caught in the wait state can never complete, no incoming products from AWIPS will be processed. The broadcast cycle will continue with whatever old products have not yet expired, and no new products will be added.

Diagnosis: If new products are not making it into the broadcast cycle or if you have a problem at the beginning or end of a voice recording you should suspect this problem. Click on a blank area of the screen and select “CRS log viewer” from the CRS Utilities menu. Look at the CP_VC log. If you are experiencing this problem, you will see that it partially processed its last record - never completed it - and then there are no more log entries although you know that new products have been sent from AWIPS (normally each new product would show its processing in this log).

Recovery: If you stop CRS and then restart it, the problem will be resolved. All products from AWIPS that didn't make it to the broadcast cycle will be sent to sso, and after the restart they will appear in the sso window. Since this problem sometimes causes database errors, it is a good idea to load a database ascii file before you restart CRS.

IMPORTANT

PREVENTION: Until this problem can be fixed in CRS Build 10.0, record your voice messages from the shadow console (instead of the master) to avoid the contention which causes these problems.